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<110> Aventis Pharma Deutschland GmbH
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<120> Process for identifying modulators of G protein coupled receptors

<130> AVE D-2000/A033 englisch

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<160> 10

<170> PatentIn Ver. 2.1

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<213> Mus musculus

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Lys	Arg	Asp 35	Ala	Arg	Arg	Glu	Leu 40	Lys	Leu	Leu	Leu	Leu 45	Gly	Thr	Gly
Glu	Ser 50	Gly	Lys	Ser	Thr	Phe 55	Ile	Lys	Gln	Met	Arg 60	Ile	Ile	His	Gly
Ser 65	Gly	Tyr	Ser	Asp	Glu 70	Asp	Lys	Arg	Gly	Phe 75	Thr	Lys	Leu	Val	Tyr 80
Gln	Asn	Ile	Phe	Thr 85	Ala	Met	Gln	Ala	Met 90	Ile	Arg	Ala	Met	Asp 95	Thr
Leu	Lys	Ile	Pro 100	Tyr	Lys	Tyr	Glu	His 105	Asn	Lys	Ala	His	Ala 110	Gln	Leu
Val	Arg	Glu 115	Val	Asp	Val	Glu	Lys 120	Val	Ser	Ala	Phe	Glu 125	Asn	Pro	Tyr
Val	Asp 130	Ala	Ile	Lys	Ser	Leu 135	Trp	Asn	Asp	Pro	Gly 140	Ile	Gln	Glu	Cys
Tyr 145	Asp	Arg	Arg	Arg	Glu 150	Tyr	Gln	Leu	Ser	Asp 155	Ser	Thr	Lys	Tyr	Tyr 160
Leu	Asn	Asp	Leu	Asp 165	Arg	Val	Ala	Asp	Pro 170	Ala	Tyr	Leu	Pro	Thr 175	Gln
Gln	Asp	Val	Leu 180	Arg	Val	Arg	Val	Pro 185	Thr	Thr	Gly	Ile	Ile 190	Glu	Tyr
Pro	Phe	Asp 195	Leu	Gln	Ser	Val	Ile 200	Phe	Arg	Met	Val	Asp 205	Val	Gly	Gly
Gln	Arg 210	Ser	Glu	Arg	Arg	Lys 215	Trp	Ile	His	Cys	Phe 220	Glu	Asn	Val	Thr
Ser 225	Ile	Met	Phe	Leu	Val 230	Ala	Leu	Ser	Glu	Tyr 235	Asp	Gln	Val	Leu	Val 240

Glu Ser Asp Asn Glu Asn Arg Met Glu Glu Ser Lys Ala Leu Phe Arg

Thr Ile Ile Thr Tyr Pro Trp Phe Gln Asn Ser Ser Val Ile Leu Phe 260 265 270

Leu Asn Lys Lys Asp Leu Leu Glu Glu Lys Ile Met Tyr Ser His Leu 275 280 285

Val Asp Tyr Phe Pro Glu Tyr Asp Gly Pro Gln Arg Asp Ala Gln Ala 290 \$295\$

Ala Arg Glu Phe Ile Leu Lys Met Phe Val Asp Leu Asn Pro Asp Ser 305 310 315 320

Asp Lys Ile Ile Tyr Ser His Phe Thr Cys Ala Thr Asp Thr Glu Asn \$325\$ \$330\$ \$335

Ile Arg Phe Val Phe Ala Ala Val Lys Asp Thr Ile Leu Gln Leu Asn \$340\$ \$345\$ \$350

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Lys Trp Ile His Cys Phe Glu Asn Val Thr Ser Ile Met Phe Leu Val

Ala Leu Ser Glu Tyr Asp Gln Val Leu Val Glu Ser Asp Asn Glu Asn 225 235 240

Arg Met Glu Ser Lys Ala Leu Phe Arg Thr Ile Ile Thr Tyr Pro \$245\$ \$250\$

Trp Phe Gln Asn Ser Ser Val Ile Leu Phe Leu Asn Lys Lys Asp Leu 260 265 270

Leu Glu Glu Lys Ile Met Tyr Ser His Leu Val Asp Tyr Phe Pro Glu 275 280 285

Tyr Asp Gly Pro Gln Arg Asp Ala Gln Ala Ala Arg Glu Phe Ile Leu 290 295 300

Lys Met Phe Val Asp Leu Asn Pro Asp Ser Asp Lys Ile Ile Tyr Ser 305 310 315 320

His Phe Thr Cys Ala Thr Asp Thr Glu Asn Ile Arg Phe Val Phe Ala \$325\$

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catotagtog actacttocc agaatagtat ggaccocaga gagatgocoa ggoagcocga 900
gaattoatto tgaagatgtt cgtggacottg aaccaagaac gtgacaaaat tatotactoc 960
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Glu Leu Lys Leu Leu Leu Gly Thr Gly Glu Ser Gly Lys Ser Thr 35 40 45

Phe Ile Lys Gln Met Arg Ile Ile His Gly Ser Gly Tyr Ser Asp Glu
50 55 60

Asp Lys Arg Gly Phe Thr Lys Leu Val Tyr Gln Asn Ile Phe Thr Ala $_{\rm 65}$ $$ 70 $$ 75 $$ 80

Met Gln Ala Met Ile Arg Ala Met Asp Thr Leu Lys Ile Pro Tyr Lys 85 90 95

Tyr Glu His Asn Lys Ala His Ala Gln Leu Val Arg Glu Val Asp Val
100 105 110

Glu Lys Val Ser Ala Phe Glu Asn Pro Tyr Val Asp Ala Ile Lys Ser 115 120 125

Leu Trp Asn Asp Pro Gly Ile Gln Glu Cys Tyr Asp Arg Arg Arg Glu 130 135 140

Tyr Gln Leu Ser Asp Ser Thr Lys Tyr Tyr Leu Asn Asp Leu Asp Arg 145 \$150\$

Val Ala Asp Pro Ala Tyr Leu Pro Thr Gln Gln Asp Val Leu Arg Val
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Arg Val Pro Thr Thr Gly Ile Ile Glu Tyr Pro Phe Asp Leu Gln Ser

180 185 190

Val Ile Phe Arg Met Val Asp Val Gly Gly Gln Arg Ser Glu Arg Arg 195 200 205

Lys Trp Ile His Cys Phe Glu Asn Val Thr Ser Ile Met Phe Leu Val 210 215 220

Ala Leu Ser Glu Tyr Asp Gln Val Leu Val Glu Ser Asp Asn Glu Asn 225 230 235 240

Arg Met Glu Glu Ser Lys Ala Leu Phe Arg Thr Ile Ile Thr Tyr Pro 245 250 255

Trp Phe Gln Asn Ser Ser Val Ile Leu Phe Leu Asn Lys Lys Asp Leu 260 265 270

Leu Glu Glu Lys Ile Met Tyr Ser His Leu Val Asp Tyr Phe Pro Glu $275 \hspace{1.5cm} 280 \hspace{1.5cm} 285$

Tyr Asp Gly Pro Gln Arg Asp Ala Gln Ala Arg Glu Phe Ile Leu 290 \$295\$

Lys Met Phe Val Asp Leu Asn Pro Asp Ser Asp Lys Ile Ile Tyr Ser 305 310 315 320

His Phe Thr Cys Ala Thr Asp Thr Glu Asn Ile Arg Phe Val Phe Ala \$325\$

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Asp Glu Ile Glu Arg His Val Arg Arg Asp Lys Arg Asp Ala Arg Arg 25 30

Glu Leu Lys Leu Leu Leu Gly Thr Gly Glu Ser Gly Lys Ser Thr $35 \hspace{1cm} 40 \hspace{1cm} 45$

Phe Ile Lys Gln Met Arg Ile Ile His Gly Ser Gly Tyr Ser Asp Glu 50 55 60

Asp Lys Arg Gly Phe Thr Lys Leu Val Tyr Gln Asn Ile Phe Thr Ala 65 70 75 80

Met Gln Ala Met Ile Arg Ala Met Asp Thr Leu Lys Ile Pro Tyr Lys 85 90 95

Tyr Glu His Asn Lys Ala His Ala Gln Leu Val Arg Glu Val Asp Val
100 105 110

Glu Lys Val Ser Ala Phe Glu Asn Pro Tyr Val Asp Ala Ile Lys Ser 115 120 125

Leu Trp Asn Asp Pro Gly Ile Gln Glu Cys Tyr Asp Arg Arg Arg Glu 130 135 140

Tyr Gln Leu Ser Asp Ser Thr Lys Tyr Tyr Leu Asn Asp Leu Asp Arg 145 150 155 Val Ala Asp Pro Ala Tyr Leu Pro Thr Gln Gln Asp Val Leu Arg Val 170 Arg Val Pro Thr Thr Gly Ile Ile Glu Tyr Pro Phe Asp Leu Gln Ser 180 185 Val Ile Phe Arg Met Val Asp Val Gly Gln Arg Ser Glu Arg Arg 200 Lys Trp Ile His Cys Phe Glu Asn Val Thr Ser Ile Met Phe Leu Val 210 215 220 Ala Leu Ser Glu Tyr Asp Gln Val Leu Val Glu Ser Asp Asn Glu Asn 225 230 235 Arg Met Glu Glu Ser Lys Ala Leu Phe Arg Thr Ile Ile Thr Tyr Pro 250 Trp Phe Gln Asn Ser Ser Val Ile Leu Phe Leu Asn Lys Lys Asp Leu 260 265 Leu Glu Glu Lys Ile Met Tyr Ser His Leu Val Asp Tyr Phe Pro Glu 275 280 Tyr Asp Gly Pro Gln Arg Asp Ala Gln Ala Ala Arg Glu Phe Ile Leu 290 295 300 Lys Met Phe Val Asp Leu Asn Pro Asp Ser Asp Lys Ile Ile Tyr Ser 305 310 315 320

His Phe Thr Cys Ala Thr Asp Thr Glu Asn Ile Arg Phe Val Phe Ala \$325\$ \$330\$

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Leu Glu Gln Lys Lys Gln Asp Arg Gly Glu Leu Lys Leu Leu Leu Leu 35 40 45

Gly Pro Gly Glu Ser Gly Lys Ser Thr Phe Ile Lys Gln Met Arg Ile 50 $$\,^{55}$

Ile His Gly Ala Gly Tyr Ser Glu Glu Glu Arg Lys Gly Phe Arg Pro 65 70 75 80

Leu Val Tyr Gln Asn Ile Phe Val Ser Met Arg Ala Met Ile Glu Ala 85 90 95

Met Glu Arg Leu Gln Ile Pro Phe Ser Arg Pro Glu Ser Lys His His

100 105 110

Ala Ser Leu Val Met Ser Gln Asp Pro Tyr Lys Val Thr Thr Phe Glu 115 120 125

Lys Arg Tyr Ala Ala Ala Met Gln Trp Leu Trp Arg Asp Ala Gly Ile 130 135 140

Arg Ala Cys Tyr Glu Arg Arg Arg Glu Phe His Leu Leu Asp Ser Ala 145 \$150\$

Val Tyr Tyr Leu Ser His Leu Glu Arg Ile Thr Glu Glu Gly Tyr Val 165 170 175

Pro Thr Ala Gln Asp Val Leu Arg Ser Arg Met Pro Thr Thr Gly Ile 180 185 190

Asn Glu Tyr Cys Phe Ser Val Gln Lys Thr Asn Leu Arg Ile Val Asp 195 \$200\$

Val Gly Gly Gln Lys Ser Glu Arg Lys Lys Trp Ile His Cys Phe Glu 210 215 220

Asn Val Ile Ala Leu Ile Tyr Leu Ala Ser Leu Ser Glu Tyr Asp Gln 225 230 235 240

Cys Leu Glu Glu Asn Asn Gln Glu Asn Arg Met Lys Glu Ser Leu Ala 245 250 255

Leu Phe Gly Thr Ile Leu Glu Leu Pro Trp Phe Lys Ser Thr Ser Val ${}^{260} \hspace{1.5cm} 265 \hspace{1.5cm} 270 \hspace{1.5cm}$

Ile Leu Phe Leu Asn Lys Thr Asp Ile Leu Glu Glu Lys Ile Pro Thr 275 280 285

Ser His Leu Ala Thr Tyr Phe Pro Ser Phe Gln Gly Pro Lys Gln Asp 290 295 300

Ala Glu Ala Ala Lys Arg Phe Ile Leu Asp Met Tyr Thr Arg Met Tyr 305 310 315 320

Thr Gly Cys Val Asp Gly Pro Glu Gly Ser Lys Lys Gly Ala Arg Ser \$325\$

Arg Arg Leu Phe Ser His Tyr Thr Cys Ala Thr Asp Thr Gln Asn Ile \$340\$ \$345\$

Arg Lys Val Phe Lys Asp Val Arg Asp Ser Val Leu Ala Arg Tyr Leu

Asp Glu Ile Asn Leu Leu